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EXTRAORDINARY

PART III—SECTION 4

No. 4]

SIMLA, THURSDAY, MAY 16, 1963

OFFICE OF THE CHIEF INSPECTOR OF MINES AND

THE CHAIRMAN, BOARD OF (METALLIFEROUS) MINING EXAMINATIONS

NOTIFICATION

Dhanbad, the 28th March 1963

No. Board/MM/9683/63.—In accordance with the provisions of Subregulation (4) of Regulation 13 of the Metalliferous Mines Regulations, 1961 the following bye-laws for the conduct of examinations for, and grant of exchange certificates under Regulation 22 of the said regulations, are hereby made:

BYE-LAWS FOR THE GRANT OF EXCHANGE CERTIFICATES AND FOR THE CONDUCT OF EXAMINATIONS THEREFOR.

- 1. Foreign certificates considered for exchange—(1) For the purpose of Subregulation (1) of Regulation 22, each of the certificates (granted under laws for the regulation of mines in foreign countries) mentioned under column (2) of the table in Appendix I shall be considered to be a certificate of a class similar to the certificate mentioned against it under column (3) of the table.
- (2) A candidate for the grant of any exchange certificate mentioned under column (3) of the table aforesaid shall be required to obtain practical experience in metalliferous mines in India, and appear at an examination, as specified against it under columns (4) and (5) respectively of the table.
- 2. Certificate under Coal Mines Regulations considered for exchange—(1) For the purpose of Sub-regulation (2) of Regulation 22, each of the certificates (granted under the Coal Mines Regulations made under the Mines Act) mentioned under column (2) of the table in Appendix II shall be considered to be a certificate of a class similar to the certificate mentioned against it under column (3) of the table.
- (2) A candidate for the grant of any exchange certificate mentioned under column (3) of the table aforesaid shall be required to obtain practical experience in metalliferous mines in India, and appear at an examination, as specified against it under columns (4) and (5) respectively of the table.

- 3. Application for the grant of an Exchange Certificate—The application for the grant of an Exchange Certificate shall be in the form at Appendix III.
- 4. Practical training of applicants for Manager's Exchange Certificate—
 (1) The application, for approval of the course of practical training in metalliferous mines in India, submitted by an applicant for the grant of a Manager' Exchange Certificate under the proviso to Sub-regulation (1) of Regulation 22 shall be submitted in the form at Appendix IV.
- (2) The practical training should be in a mine having an average daily employment of not less than 150 in workings belowground or not less than 400 persons in all in the mine, and should include training in underground mines for a period of not less than three months.
- 5. Examination of candidates for Manager's Exchange Certificate—(1) Every candidate for the grant of a Manager's Exchange Certificate in lieu of a Manager's Certificate of a similar class as mentioned under bye-laws 1 and 2, shall be required to appear in an examination consisting of a written paper and an oral test for each of the following two subjects:
 - (i) Winning and Working,
 - (ii) Mine Management, Legislation and General Safety.

The syllabus for the examination for the First Class Manager's Exchange Certificate shall be as laid down in Appendix V and that for the Second Class Manager's Exchange Certificate as laid down in Appendix VI.

- (2) The examiners appointed for the examinations shall be two inspectors of mines, one for each subject.
- (3) The examination shall carry a total maximum of 300 marks—a maximum of 100 marks for each of the two written papers, and of 50 marks for each of the oral tests. In order to pass the examination, a candidate must obtain not less than 40 marks in each of the written papers, not less than 20 marks in each of the oral tests and an aggregate of not less than 180 marks in the written examination and the oral tests taken together.
- 6. Practical Training of applicants for Mine Surveyor's Exchange Certificate—Every candidate for the grant of a Mine Surveyor's Exchange Certificate in lieu of a similar certificate as mentioned in bye-laws 1 and 2 shall be required to have practical experience, for a period of not less than three months, of surveying the workings below ground of a metalliferous mine having an average employment of not less than 60 in workings belowground.
- 7. Examination of candidates for Mine Surveyor's Exchange Certificate—
 (1) Every candidate for the grant of a Mine Surveyor's Exchange Certificate in lieu of a Surveyor's Certificate of similar class as mentioned in bye-laws(1) and (2) shall be required to appear in an examination consisting of a written paper and an oral test, from the syllabus laid down in Appendix VII.
- (2) The examiners appointed for the examinations shall be two inspectors of mines who shall also act as Secretary for the examination.

- (3) The examination shall carry a total maximum number of 200 marks i.e., a maximum of 100 marks for the written paper and 100 marks for the oral test. In order to pass the examination, a candidate must obtain not less than 50 marks in the written paper, not less than 50 marks in the oral test and an aggregate of not less than 120 marks in the written examination and the oral test taken together.
- 8. Practical Training of applicants for Mine Foreman's and Mining Mate's Exchange Certificates—(a) Every candidate for the grant of Mine Foreman's or Mining Mate's Exchange Certificate in lieu of a similar certificate as mentioned under bye-laws 1 and 2 shall be required to have practical training in metalliferous mines in India for a period of not less than twelve months.

Provided that in case of candidates for the grant of an unrestricted Mine Foreman's or Mining Mate's Exchange Certificate a period of not less than three months experience should have been obtained in the workings below-ground of a mine.

- (b) Only such experience shall be approved as is obtained in a metallifercus mine having an average employment of not less than 100 in all in the mine or not less than 40 in the workings belowground of the mine as the case may be.
- 9. Examination of candidates for Mine Foreman's and Mining Mate's Exchange Certificate—(1) Every candidate for the grant of a Mine Foreman's Exchange Certificate shall be required to appear in an oral examination from the syllabus laid down in Appendix VIII, in the case of the unrestricted certificates, and from the syllabus laid down in Appendix IX in the case of certificates restricted to mines having opencast workings only.
- (2) Every candidate for the grant of a Mining Mate's Exchange Certificate shall be required to appear in an oral examination from the syllabus laid down in Appendix X in the case of the unrestricted certificates and from the syllabus laid down in Appendix XI in the case of certificate restricted to mines having opencast workings only.
- (3) The examiners appointed for the examinations shall be two inspectors of mines.
- (4) The examination shall carry a total maximum of 100 marks and, in order to pass the examination, a candidate must obtain not less than 60 marks.
- 10. Identity and conduct of the candidates—(1) Every candidate for a Manager's or Surveyor's or Mine Foreman's Exchange Certificate shall be required to sign in a register in which his roll number has been recorded.
- (2) (a) Every candidate for a Mining Mate's Certificate shall, at the time of the examination, hand over the authorisation—issued to him for appearing in the examination and two unmounted photographs of himself (of a size approximately 5 cm×6·5 cm) to the Secretary for the examination who after satisfying himself that each photograph is a likeness of the candidate shall endorse each of them on the back with the name of the candidate.

- (b) The Local Secretary of the examination shall record the left hand thumb impression of every successful candidate for the grant of Minc Foreman's Exchange Certificate.
- (3) Every candidate shall conduct himself as required by the Local Secretary of the examination. The Rules laid down in Appendix XII shall apply to the conduct of the written examination.
- (4) Any candidate who submits a false certificate or counterfeits a certificate or makes a false declaration or adopts unfair means during the examination, may be disqualified by the Board and also debarred from appearing at any subsequent examinations for a specified period not exceeding three years depending upon the facts of the case.
- 11. Result and re-examination—(1) The result of an examination held under these bye-laws, as approved by the Board, shall be communicated to the candidate(s) concerned in writing.
- (2) A candidate who has failed to pass an examination under these bye-laws shall not be eligible for re-examination for a period of three months from the date of the examination in which he fails. Fees on the scale laid down in Regulation 21 shall be payable in respect of every application for re-examination as well.

Equivalents of Foreign Certificates considered for Eachange

APPENDIX I

Serial No.	Class of certificate granted in the foreign country	Certifleate under the Metalliferous Mines Regulations of similar class	Duration of prac- tical experience necessary in metal mines in India	Examination to be passed if any
1	2	3	4	5
1	Certificates granted under the M	ines and Quarries Act, 1 to coal and other mines		in (as applicable
1·1	First Class Cortificate of Competency (including cer- tificates for mines of strati- fied ironstone).	First Class Manager's Certificate.	One year (See bye-law 4).	See bye-law 5
1.2	Second Class Cortificate of Competency (including certi- fleates for mines of stratifled ironstone).	Second Class Manager's Certificate.	S One year (See byo-law 4).	See bye-law 5.
1.3	Surveyor's Certificate	Surveyor's Certifloate	Three months See bye-law 6.	See bye-law 7.
1.4	Deputy's Certifloate	Mine Foreman's Cer- tificate (either un- restricted, or rest- ricted, to mines having open- cast workings only).	One year (See bye-law 8).	See bye-law 0°
1.5	Shotfirer's Cortificates	Blaster's Certificate	No	No
1.6	Gas-testing Certificate	Gas-testing Certificate	No	No

APPENDIX II

Equivalents of Certificates granted under Coal Mines Regulations etc. made under the Mines Act, 1952 considered for exchange

Serial No.	Class of certificate under Coal Mines Regulations	Certifloate under Metalliferous mines Regulations of similar class	Duration of prac- tical experience necessary in metalliferous mines in India	Examination to be passed, if any
1	2	3	4	5
1	First Class Manager's Certificate.	First Class Manager's Certificate.	One Year (See Byelaw 4).	See Byelaw 5.
2	Second Class Manager's Certificate.	Second Class Mana- gor's Certificate.	One year (See Byelaw 4).	See Byelaw 5.
3	Surveyor's Certificate	Surveyor's Certificate	Three months (See Byelaw 6).	See Byelaw 7.
4	Overman's Certificate	Mine Foreman's Cer- tificate.	One year (See Byelaw 8).	See Byelaw 9.
5	Sirdar's Certificate	Mining Mate's Certificate.	One Year (See Byelaw 8).	See Byelaw 9.
6	1st Class Winding Engine- man's Certificate.	Ist Class Winding Engineman's Certi- floate.	No	No
7	2nd Class Winding Engine- man's Certificate.	2nd Class Winding Engineman's Certi- ficate.	No .,	No
8	Shotfirer's Cortificate	Blaster's Certificate	No	No
9	Gas-Testing Certificate	Gas-testing Certificate	No	No

APPENDIX III

(See Bye-law 3)

Form of application for the grant of an Exchange Certificate

To

The Chairman, Board of Metalliferous Mining Examinations and

Chief Inspector of Mines, Government of India, Dhanbad E. Rly.

Sir,

Important—Appli should also submit ar cribed form.	cants for applica	the g	rant of Manager's Exchange Certificate rapproval of practical training in pres-
(i) Full Name			
(ii) Nationality			
(iii) Address			
(iv) Date of Birth			
(v) Father's name			
(vi) Home address in	full	• •	Village Thana District State
(vii) Act (with a recountry) under who was granted			
(viii) Kind and Class	of certific	eate	
(ix) Number and dat	e of cer	tificate	
(x) Full details of qu previous mining exp		ns and	
State Bank of India "XXXII—Miscelland	a, at Pous So	cial S	.† has been depoisted in the Treasury/ , under the Head of Account ervice Organisation—Receipt of Chief es—Central", and the original receipted.
Challan (No	date	d) is enclosed,
`			Yours faithfully
Date			Signature of applicant
	ϵ	Certificat	te of Identity
who is the holder of	а‡		th Shri
		!	Signature
			Designation or
			profession
Date			Postal address
*Montum one of the	following	aa anni	ion blo

First Class Manager's Certificate.
 Second Class Manager's Certificate.
 Surveyor's Certificates.
 Mine Foreman's Certificate.
 Mining Mate's Certificate.
 Ist Class Winding Enginedriver's Certificate
 2nd Class Winding Enginedriver's Certificate
 Blaster's Certificate.
 Gas-testing Certificate.
 The schedule of fees is given below.
 Specify the Class of Certificate.

		Rs
(a) in the case of an examination for a First Class Manager's Certificate	••	50
(b) in the case of an examination for a Second Class Manager's Certificate		30
(c) in the case of an examination for a Surveyor's Certificate	• • •	20
(d) in the case of an examination for a Overman's Certificate		10
(c) in the case of an examination for a Sirdar's Certificate	••	5
(f) in the case of an examination for a 1st Class Enginedrivers Certificate		10
(g) in the case of an examination for a 2nd Class Enginedrivers Certificate		õ
(h) in the case of an examination for a Shotfirer's Certificate		3
(i) in the case of an examination for a Gas-testing Certificate	••	2

APPENDIX IV

(See Bye-law 4)

Form of application for prior registration for practical training
[Proviso to Regulation 22(1)]

To

The Chief Inspector of Mines, Government of India, Dhanbad, E. Rly.

SIR.

I am desirous of applying for the grant of an Exchange First/Second Class Manager's Certificate under Regulation 22(1) of the Metalliferous Mines Regulations, 1961, and furnish the following details. I would request for your approval to the course of practical training detailed below—

(a) (i) Full name	
(ii) Nationality	
(iii) Address	
(iv) Date of birth	
(v) Father's name	

	(vi) Home address in full	Village Thana District State		
	(b) (i) Act under which certificate was granted			
	(ii) Kind and Class of Certificate			
	(iii) Number and date of Certificate			
	(iv) Full details of qualifications			
	(v) Class, Number and date of certificates, if any, held under (Indian) Mines Act			
	(c) (i) Full details of previous mining experience (including experience obtained in India)			
	(ii) The mine in which it is proposed to obtain training in India, and the number of employees.			
	(a) in workings below ground,			
	(b) total			
	(iii) The capacity in which it is proposed to obtain training, in India.			
	(iv) Whether the managment(s) of the mine(s) have agreed to give facilities for the training.			
	(v) Date on which it is proposed to commence training			
	(d) Any other relevant information which the applicant may like to mention.			
			Yours	faithfully
			Signature of	Applicant
Date	Postal	address in	India	

APPENDIX V

SYLLABUS FOR THE EXAMINATION FOR THE FIRST CLASS MANAGER'S EXCHANGE CERTIFICATE OF COMPETENCY

(i) Winning and Working

Mineral deposits, their classification; Prospecting and application of geology to mining.

Methods of boring, Boring through disturbed strata. Bore-hole surveying.

Methods of sinking; in ordinary and water-logged ground; in running sand etc. Freezing, cementation and other special methods. Shaft supports, temporary and permanent. Tubbings.

Driving of inclined shafts.

Siting, development and layout of mines, including surface and underground arrangements. Layout and development of shaft-top, shaft bottom and haulage arrangements.

Methods of opencast mining, different layouts, mechanised quarrying with deephole blasting and heavy machinery. Benching and other safety precautions.

Underground mining. Methods of development. Influence of depth, thickness of ore-body, inclination etc. on selection of method of development.

Methods of stoping (open stopes, timbered stopes, filled stopes, shrinkage stopes and other methods).

Sampling, Reserve Calculation and Mine Valuation.

Mechanised mining. Modern layouts and designs. Mechanized drivage Support of strata. Roadway and face supports, their types, setting,

withdrawal etc. packing and stowing.

Roof control. Theories of ground movement, theories of strata control Strength of rock, shaft pillars. Protection of surface structures. Subsidence Problems of deep mining; rock-bursts.

Use of explosives. Blasting techniques; and their relative efficiency.

(ii) Mine Management, Legislation and General Sufety

Mine organisation, principles of management and industrial discipline. Personnel management.

Recruitment, selection, training and control of staff.

Mines Act, the Metalliferous Mines Regulations, and Rules etc. made under the Act. Electricity Act and Rules applicable to mines. Other legislation applicable to mines.

Accidents. Their causes and prevention. Accident statistics and analysis. Rates of accidents. Bearing of accident on efficiency. Accident reports.

First aid and ambulance work.

Investigation after mine fires and explosions.

Mine rescue. Mine gases and their physiological effects. Rescue equipment. Resuscitation and reviving apparatus. Selection and training for rescue work.

Sillic sis and pneumoconiosis. Physical aspects of breathing in dust-laden atmospheres. Dust-sampling and sampling instruments. Methods of counting and analysis.

Other miners' diseases. Their symptoms, prevention and treatment.

Lighting. General principles of artificial lighting. Lighting standards and their assessment.

Sanitation and health.

APPENDIX VI

(See Bye-law 5)

SYLLABUS FOR THE EXAMINATION FOR THE SECOND CLASS MANAGER'S EXCHANGE CERTIFICATE OF COMPETENCY

(1) Winning and Working

Mineral deposits and their classification.

Method boring. Boring through disturbed strata.

Methods of sinking. In ordinary and water-logged ground. Shaft supports, temporary and permanent.

Driving of inclined shafts.

Layout and development of simple shaft-top, shaft-bottom and haulage arrangements. Methods of openeast mining. Different layouts. Mechanised quarrying with deephole blasting and heavy machinery. Benching and other safety precautions.

Underground mining. Methods of development and stoping. Making of drivages, Support of strata, Roadway and face supports, their types, setting, withdrawal etc. Packing and stowing. Roof control; Rockbursts. Shaft pillars. Protection of surface structures.

Use of explosives. Blasting techniques and their relative efficiency.

(ii) Mine Management, Legislation and General Safety

Mine Organisation. Recruitment and control of staff.

Mines Act, Metalliferous Mines Regulations and Rules etc. made under the Act. Other legislation applicable to mines.

Accidents. Their cause and prevention. Accident reports. First Aid.

Mine rescue. Mine gases and their physiological effects. Rescue equipment. Resuscitation and reviving apparatus. Selection and training for rescue work.

Silicosis and Pneumocomosis, Dust-sampling and analysis.

Other miners' diseases. Their symptoms, Prevention and Treatment. Lighting standards and their assessment.

Sanitation and health.

APPENDIX VII

(See Bye-law 7)

SYLLABUS FOR THE EXAMINATION FOR THE MINE SURVEYOR'S EXCHANGE CERTIFICATE OF COMPETENCY

Surveying through inclined shafts.

Control of the Direction and Inclination of Drives; Layout of Curves and Inclined Shafts.

Methods of Survey control for Winzes and Raises.

Stope surveying.

Vertical Projections; Transformation of Co-ordinates; Mines Models.

Development sampling; channel averaging; block-averaging. Stope sampling averaging of stope-face boundaries.

Valuation of block-reef tonnages; milling widths; ore-reserve plans.

APPENDIX VIII

(See Bye-law 9)

SYLLABUS FOR THE EXAMINATION FOR THE UNRESTRICTED MINE FOREMAN'S EXCHANGE CERTIFICATE OF COMPETENCY

(a) General Safety and Legislation

Duties and responsibilities of workmen, competent persons and officials (excluding managers, assistant managers, engineers and surveyors). Discipline amongst workers, and control of staff.

Provisions of the Metalliferous Mines Regulations and Rules relating to Mine Workings; Explosives and Shotfiring, Haulage, General knowledge of regulations and rules relating to ventilation, precautions against danger from fire, dust, gas and water; and of other provisions, the enforcement of, and compliance with which is and can be the responsibility of mines foremen.

Writing of reports required to be made by mine foremen under the regulations.

Dangerous occurrences in mines, and how to deal with them. Accidents. Their causes and prevention. Accident reports. Disturbing the place of accident.

Mine Rescue. Physiological effect of mine gases. Rescue Equipment. First Aid.

Sanitation and health. Miners' diseases; their main symptoms and prevention. Suppression of dust.

(b) Methods of Working

Nature of occurrence of mineral deposits. Dangerous and precautionary measures while approaching geological disturbances.

The purpose and utility of boreholes in mines. Shaft sinking; safety devices. Shaft supports, temporary and permanent in sinking and working shafts. Examination of shafts and outlets.

Methods of opencast mining: mechanised and hand-cut working. Benching and other safety precautions.

Underground mining; General principles of development and stoping Making of drivages.

Support of strata. Roadway and face supports, their types, setting, withdrawal etc. Packing and stowing.

Elements of roof control—Protection of surface structures. Working beneath statutorily restricted areas and surface structures.

Gates and fencing; different kinds of fences.

Inspection of working and roadways.

Travelling roadway their maintenances and inspection.

Reading of statutory plans.

Use and safe handling of explosives. Heavy blasting.

(c) Ventilation and Precautions with respect to Explosions, Fires, Inundation

Natural and mechanical ventilation. Ventilation of headings and sinking shafts. Siting of auxiliary fans underground. Distribution, measurement and control of air in mines. Reading of anemometer. Calculation of areas and volumes. Maintenance of ventilation appliances.

Elementary knowledge of causes and prevention of fire-damp explosions. Limits of inflammability of fire-damp.

Elements of design of flame and electric safety lamps; their use, examination and maintenance.

Pollution of air and irruption of gases in mines. Occurrence, properties, characteristics, detection and measurement of fire-damp and noxious gases, Sampling of air, Determination of environmental conditions.

Fires and spontaneous heating. Elements of preventing, detecting and controlling mine fires. Sealing off fire areas. Fire stoppings and their examination. Precautions against outbreak of surface fires. Firefighting, both on surface and belowground.

Inspection of old workings.

Sources of danger from surface and underground water. Precautions to prevent inundations and irruptions of water. Boring machines for exploratory workings. Water damps. Water danger plans.

Recovery of mines after explosions, fires and inundations. Precautionary measures during re-opening and dewatering of mines.

(d) Elements of Mining Machinery

Safety aspects and safe use of different kinds of machinery used in mines. Brakes. Generation and use of compressed air. Use of steam engines.

Application of electricity in mines. Safety precautions.

Use of internal combustion engines in mines.

Winding equipment; Ropes and guides. Signalling and decking arrangements. Safety devices. Examination of winding equipment and shaft fittings.

Haulage and transport: Types of haulages, Rope and locomotive haulage. Self-acting inclines. Haulage roads and roadways. Rails and tracks; their maintenance and inspection. Tubs signalling, Safety devices. Unsafe practices. Derailments.

Drainage of water and water lodgments, Types of pumps. Principle and use of syphons.

APPENDIX IX

(See Bye-law 9)

SYLLABUS FOR THE MINE FOREMAN'S EXCHANGE CERTIFICATE OF COMPETENCY RESTRICTED TO MINES HAVING OPEN CAST WORKINGS ONLY

(a) General Safety and Legislation

Duties and responsibilities of workmen, competent persons and officials (excluding managers, assistant managers, engineers and surveyors). Discipline amongst workers, and control of staff.

Provisions of the Metalliferous Mines Regulations and Rules relating to open Mine workings; Explosives and Shotfiring, Haulage; General knowledge of regulations and rules relating to precautions against danger from dust and water; and of other provisions, the enforcement of, and compliance with which is and can be the responsibility of mine foremen.

Writing of reports required to be made by mines foremen under the regulations.

Accidents. Their causes and prevention. Accident reports. Disturbing the place of accident.

First Aid.

Sanitation and health, Miners' diseases: Their main symptoms and prevention. Suppression of dust.

(b) Methods of working

Nature of occurrence of mineral deposits. Dangers and precautionary measures while approaching geological disturbances in openeast mines.

The purpose and utility of boreholes in proving deposits.

Methods of opencast mining—machinised and hand-cut working. Benching and other safety precautions.

Gates and fencing; different kinds of fences.

Inspection of opencast workings.

Reading of statutory plans.

Use and safe handling of explosives. Heavy blasting.

Sources of danger from surface water. Precautions to prevent inundations and irruptions of water. Water dams. Water danger plans.

(c) Elements of Mining Machinery

Safety aspects and safe use of different kinds of machinery used in mines. Breakes.

Generation and use of Compressed Air.

Use of steam and internal combustion engines.

Application of electricity in opencast mines, Safety precautions.

Haulage and transport: Types of haulages. Rope and locomotive haulages. Self-acting inclines. Rails and tracks; their maintenance and inspection. Tubs, Signalling, safety devices, Unsafe practices. Derailments.

Drainage of water lodgments, Types of pumps. Principle and use of syphones.

APPENDIX X

(See Bye-law 6)

SYLLABUS FOR THE EXAMINATION FOR THE MINING MATE'S EXCHANGE CERTIFICATE OF COMPETENCY

- (i) Benching and sloping of opencast workings; examination and dressing of sides.
- (ii) Method of examining longwall, footwall, roof and sides of working places and roadways etc.
- (iii) Methods of timbering, packwalling and setting support; withdrawal of supports; fencing of dangerous places.
 - (iv) Shotfiring, and transport and use of explosives in mines;
 - (v) Ventilation and mine gases-elementary;
- (vi) Provisions of the Metalliferous Mines Regulations and Rules made under the Mines Act, 1952, relating to the safety of persons employed in mines in general, and to the duties of Mates and Blasters in particular.

APPENDIX XI

(See Bye-law 9)

SYLLABUS FOR THE MINING MATE'S EXCHANGE CERTIFICATE OF COMPETENCY RESTRICTED TO MINES HAVING OPENCAST WORKINGS ONLY

- (i) Benching and sloping of opencast workings; examination and dressing of sides. Fencing of opencast workings and other dangerous places.
 - (ii) Shotfiring, and transport and use of explosives in opencast mines.
- (iii) Provisions of the Metalliferous Mines Regulations and Rules made under the Mines Act, 1952, relating to the safety of persons employed in opencast mines in general and to the duties of Mates and Blasters in particular.

APPENDIX XII

RULES GOVERNING THE CONDUCT OF THE WRITTEN EXAMINA-TION

1. No candidate shall be admitted into the examination hall until he has produced an authorisation issued by the Secretary. No candidate arriving more than 30 minutes late shall be permitted to attend the examination; and no candidate arriving late shall be eligible for any extra compensatory time.

- 2. Before entering the examination hall, every candidate shall leave all books notes and papers etc., out-side.
- 3. Every candidate shall be required to sign in a register in which his rol₄ number would be recorded.
- 4. Paper will be supplied, and no paper other than that so supplied shall be used.
- 5. Names shall not be written on the answer book. Every candidate shall write his roll number on the slip attached to the answer book and nowhere else. Any person who writes his roll number or name or initials etc., on his answer book is liable to be disqualified.
- 6. Ink will be provided. Candidate shall bring own pens and pencils, drawing pens and drawing instruments, including protractor where required.
- 7. Slide Rules may be used. Candidates will be supplied with logarithmic tables if considered necessary by the examiner.
- 8. The calculations and other work by which a result is obtained shall be clearly shown on the left-hand side page, in inunediate connection with the answer to the question under reference.
- 9. Sketches may be made to illustrate answers. When sketches are asked for, it would be understood that, unless otherwise stated, free hand sketches with dimensions are all that is necessary; and candidates need not spend time in making finished drawings.
- 10. Any candidate desiring to consult the examiner or requiring any paper or other material should stand in his seat to draw attention, but should not shout or call out.
- 11. Any candidate speaking to any other candidate, or consulting any book or notes, or using paper other than that supplied by the Board, or using any other unfair means or acting in a manner considered improper by the examiner, shall be liable to be disqualified.
- 12. No candidate shall leave the examination hall before the expiry of one hour after the commencement of the examination.
- 13. When a candidate has completed the answers to the questions or when the time allowed for answering the questions has elapsed, or when a candidate has been disqualified under Rule 11, he must hand over the answer book to the Secretary of the examination and at once leave the examination hall.

(G. S. JABBI)

Chief Inspector of Mines and Chairman, Board of (Metalliferous) Mining Examinations.